



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/025,069	12/18/2001	Ned M. Smith	884.627US1	8363
21186	7590	04/08/2005	EXAMINER	
SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH, P.A. P.O. BOX 2938 MINNEAPOLIS, MN 55402			TO, JENNIFER N	
			ART UNIT	PAPER NUMBER

2195

DATE MAILED: 04/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/025,069	SMITH, NED M.	
	Examiner	Art Unit	
	Jennifer N. To	2195	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 December 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 April 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>04/08/02</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1-25 are presenting for examination.
2. The disclosure is objected to because it contains an embedded hyperlink and/or other form of browser-executable code (page 6, line 11; page 7, line 19). Applicant is required to delete the embedded hyperlink and/or other form of browser-executable code. See MPEP § 608.01.

Claim Rejections - 35 USC § 101

3. 35 U.S.C. 101 reads as follows:
 - a. Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof; may obtain a patent therefor, subject to the conditions and requirements of this title.
4. Claims 1-10 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.
5. Claims 1-10 are directed to method steps in which can be practiced mentally in conjunction with pen and paper, therefore they are directed to non-statutory subject matter. Specifically, as claimed, it is uncertain what performs each of the claimed method steps. Moreover, each of the claimed steps, inter alia, (specifying, binding, configuring, scheduling, executing, identifying, defining, locating, searching, and registration) can be practiced mentally in conjunction with pen and paper that is not tied to a technological art, environment, or machine which would result in a practical

application producing a concrete, useful, tangible result to form the basis of statutory subject matter under 35 U.S.C. 101. Therefore, the claimed invention is directed to non-statutory subject matter. The claims should be amended to indicate a computer implements the subject matter. (i.e. a computer implemented method).

Claim Rejections - 35 USC § 112

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

b. The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter in which the applicant regards as his invention.

7. Claims 1-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The claim language in the following claims is not clearly understood:

- i. as per claim 1, line 2, it is uncertain what is meant by "a process definition task structure including a plurality of tasks" (i.e. a process definition task structure for a plurality of tasks?); line 3, it is unclear what is the basis for "binding" (i.e. based on the definition task structure?); line 5, it is uncertain what "process information element" refers to (i.e. process definition task structure?); line 6, it is uncertain what is meant by "one datum having a value" (i.e. a value here is referring to process information element or is it meant a value of the resource); line 7, it is not clearly understood how the "scheduling" base on (i.e. specifying process definition task structure, or binding of plurality of resources, or information stored in the cache).

- ii. as per claims 11 and 16, they have the same deficiency as claim 1 above.

Corrections are required.

- iii. as per claim 21, line 4, it is not clearly indicated what the relationship is between "a process body" and "a process state".

- iv. as per claim 23, line 3, it is unclear what is meant by "interface definition" (i.e. resource profile?).

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 1-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Candea (U.S. Patent No. 6785756) in view of Hu (U.S. Patent No. 6173322).

10. As per claim 1, Candea teaches the invention substantially as claimed including a method, comprising:

specifying a process definition task structure including a plurality of tasks (col. 3, lines 2-5);

dynamically binding a plurality of selected resources to the plurality of tasks (col. 3, lines 41-42 and 45-46); scheduling the plurality of resources to execute the plurality of tasks (col. 4, lines 62-64, and fig. 2); and
executing the plurality of tasks (col. 5, line 4).

11. Candea does not specifically teach that configuring a cache to store at least one process information element included in the plurality of tasks and at least one datum having a value.

Hu teaches that configuring a cache to store at least one process information element included in the plurality of tasks and at least one datum having a value (col. 12, lines 66-67; col. 13, lines 1-10).

12. It would have been obvious to one of an ordinary skill in the art at the time the invention was made to have combined the teaching of Candea and Hu because Hu's cache for storing process information would improve the throughput of Candea's system by storing needed data in cache to significant time saving when accessing data and/or process information (Hu, col. 3, lines 11-15).

13. As per claim 2, Candea teaches that identifying a plurality of intrinsic properties associated with a plurality of designated resources (col. 2, lines 39-42); identifying a plurality of assignable properties associated with the plurality of designated resources

(col. 2, lines 64-65; col. 8, lines 21-25); and defining a plurality of query predicates associated with the plurality of designated resources (col. 5, lines 44-58).

14. As per claim 3, Candea teaches dynamically binding a plurality of selected resources to the plurality of tasks further comprises:

registration of the pluralities of intrinsic and assignable properties with at least one resource directory (col. 9, lines 29-33);

locating a plurality of resource directories including the at least one resource directory (col. 9, lines 36-43); and

searching the plurality of resource directories to find the plurality of selected resources associated with the plurality of designated resources (col. 9, lines 61-64).

15. As per claim 4, Hu teaches that configuring a plurality of access control rules associated with the plurality of selected resources (col. 16, lines 54-57); and delivering a plurality of access credentials associated with the plurality of access control rules to the plurality of selected resources (col. 7, lines 23-25).

16. As per claim 5, Hu further teaches that distributing at least one software module to at least one of the plurality of selected resources (col. 6, lines 15-17, and col. 9, lines 44-45); and distributing the plurality of tasks to the plurality of selected resources (col. 2, lines 32-34).

17. As per claim 6, Hu teaches pre-fetching the value of the at least one datum 9col. 15, lines 7-9); and storing the value of the at least one datum in the cache (col. 13, lines 24-27).

18. As per claim 7, Hu teaches revising the value of the datum stored in the cache (fig. 6; col. 7, lines 64-65).

19. As per claim 8, Hu teaches revising the value of the datum stored in the cache further comprises:

requesting the value of the datum from a data source (col. 12, lines 59-62);
marking the datum at the data source using a tag associated with a selected one of the plurality of tasks stored in the cache (col. 13, lines 7-9);
receiving an update notification for the value of the datum (col. 15, lines 6-7); and
replacing the value of the datum with an updated value for the datum (col. 15, lines 7-9).

20. As per claim 9, Hu teaches removing the tag when the selected one of the plurality of tasks is purged from the cache (col.13, lines 62-67; col. 14, lines 53-56).

21. As per claim 10, Hu teaches that monitoring a plurality of results associated with executing the plurality of tasks (col. 11, lines 53-56; col. 18, lines 22-23).

Art Unit: 2195

22. As per claim 11, these are an information system claims that correspond to the method claim 1. Therefore, this claim is rejected for the same reason as claims 1.

23. As per claim 12, Hu further teaches a cache update module capable of being communicatively coupled to the cache (col. 6, lines 3-10).

24. As per claim 13, this is an information system claim that corresponds to the method claim 10. Therefore, this claim is rejected for the same reason as claim 10.

25. As per claim 14, Candea teaches the specification module and the scheduling module are included in a first computer (fig. 5; col. 11, lines 51-54).

26. As per claim 15, Candea teaches the binding module and the cache are included in a second computer capable of being communicatively coupled to the first computer (fig. 5; col. 12, lines 10-11).

27. As per claims 16-20, these are an article claims that correspond to the method claims 1-3, 7, and 8. Therefore, this claim is rejected for the same reason as claims 1-3, 7, and 8 above.

28. As per claim 21, Candea teaches an article comprising a machine-accessible medium having associated data, wherein the data, when accessed, results in a machine performing: specifying a process body including a plurality of tasks (col. 3, lines 2-5).

Hu teaches that specifying a process state having execution state information (col. 11, lines 53-56; col. 18, lines 22-23).

29. As per claim 22, Candea further teaches specifying the at least one operation further comprises: specifying at least one operation conducted at a resource discovery location by a selected resource having a resource profile (col. 9, lines 61-64).

30. As per claim 23, Candea further teaches specifying the parameter data further comprises: specifying a service type (col. 3, lines 42-44), an interface definition (col. 9, line 29), and parameter data (col. 3, lines 60-63).

31. As per claim 24, Candea teaches specifying the parameter data further comprises: specifying a datum to be revised at a data discovery location by a selected repository having a repository profile (col. 3, lines 63-67).

32. As per claim 25, Hu teaches specifying the process state further includes: specifying a process instance identification (col. 15, lines 57-60), a process execution status (col. 18, lines 22-23), and at least one task result associated with a selected one of the plurality of tasks (col. 11, lines 53-56).

Conclusion

33. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jennifer N. To whose telephone number is (571) 272-7212. The examiner can normally be reached on M-T 7AM- 4:30 PM, F 7AM- 3:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng-Ai An can be reached on (571) 272-3756. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Jennifer N To
Examiner
Art Unit 2195


MENG-AL T. AN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100